

INFRARED SOLUTIONS - SYSTEMS & SERVICES

 **Avio**
an **NEC** Group Company
Infrared Systems
Infrarot Systeme

 **irPOD.net**
INFRARED-CAMERA-CONFIGURATOR
www.irPOD.net

Thermal conditional monitoring as a complete built-in system in a protective housing for conditional monitoring, quality assurance, process control and safety technology



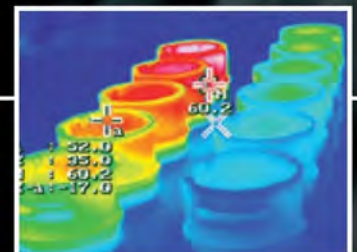
PROTEBS-1TB - IR-Thermal Imager in an IP67 Cabinet with Air-Purge and optional cooling, digital long term HDD recording and trigger signal to a control unit

PROTEBS-1TB is a multiple thermal imaging system is an immediately operational control mechanism for a wide range of applications.

PROTEBS-1TB is integrated in an IP67 protected cabinet and covers nearly all temperature ranges and offers an excellent spatial resolution with zoom option. The standard semi-wide angle image sensor delivers high-frequency sequences of thermal sceneries and provides diverse field of view as well as flexible focusing distances to desired objects. A standard air-purge system allows operating in a massively polluted atmosphere. The air-flow even allows an optional cooling of the camera housing which finally makes the equipment suitable for applications in harshest environment.

The trigger signal transmits any detection impulses as a result of conducted analytic investigation which can be transferred preferable via long distances. This paves the way for anomalies occurring alerts, operation of signal lights, horn or warning alarms to the control room (automatic e-mail delivery, etc.). A standard Uninterruptible Power Supply (UPS) ensures a permanent "up-time" to prevent sudden power failures.

The comprehensive recordings of radiometric image movie sequences incl. minimum statistics, hot-/ cold of neuralgic areas (ROIs) are to be secure stored digitally on a monitor-based 1TB memory for days. The preferably installation location is within control stations, in a switch-box cabinet or in gray areas of industrial facilities. The days possible event logging allows a so-called "review" of abnormalities without interruption of continuous detection..





Applications

- ▶ Process enhancement
- ▶ Production control
- ▶ Conditional monitoring
- ▶ Security & Observation
- ▶ Remote sensing
- ▶ Fire prevention

Technical specifications and scope of delivery

Thermal Imager with protecting cabinet
Protecting housing including air-purge
Detector

Frametime frequency

Geometrical resolution

Wavelength

Standard measurement ranges

Optical resolution (FOV)

Thermal sensitivity (NETD)

Interfaces

Process-Trigger-Signaloutput

Environment temperature

Storage humidity

Shock / Vibration

Adaptor holder

Power supply

Monitoringsystem with Mass storage

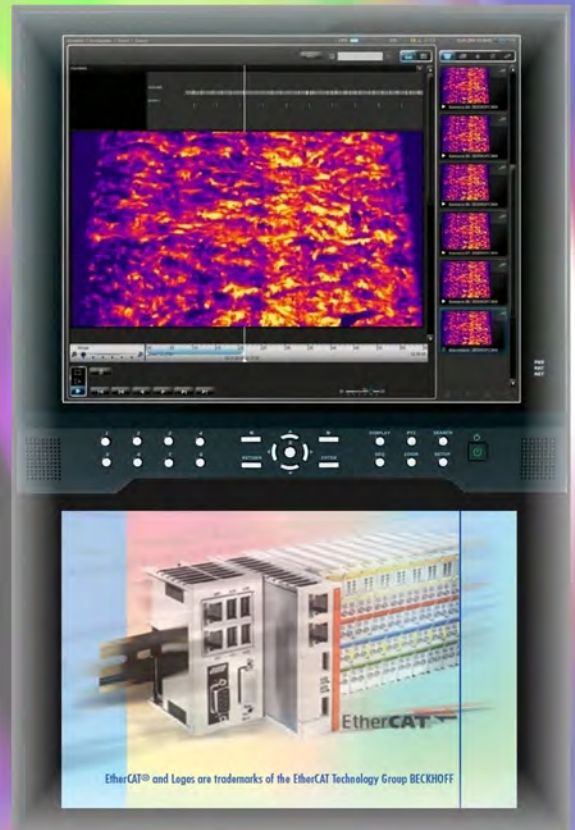
Long term recording and

Review function and Ethernet-LAN

PROTEBS

- 1TB -

- + Judgement
- + Trigger
- + Monitoring
- + Digital-
long-term
Recording
- + EtherNET
- + IP67 Cabinet
- + Air-Purge
- + Cooling opt.
- + UPS Support



IP 67 Aluminum protection housing

Compressed air up to 5 bar

uFPA Microbolometer

60 Hz

320 x 240 Pixels

7,5 ... 13 µm

-40°C... +60°C (high resolution)

-20°C... +120°C

0°C... +500°C

0°C... +1.500°C (high temperature)

(flexible measurement ranges free selectable)

up to 32° x 24° view angle

0,06K e.g. 0,04K at SN-I

USB 2.0 and NTSC/PAL Video-out, analog switch port 24V

-15°C ... +50°C (no cooling)

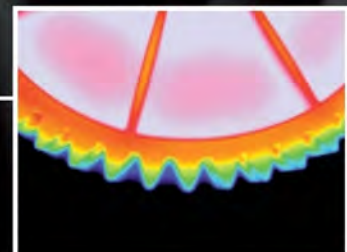
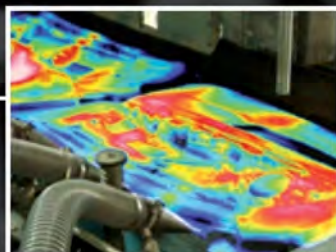
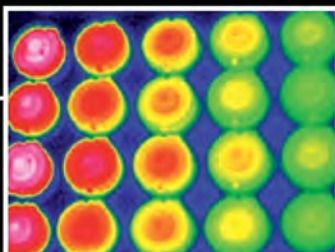
up to 90 %, no condensate

30G, IEC 68-2-29 / 3G, IEC 68-2-6

flexible screw terminal (series)

UPS uninterrupt power supply

Large sized LCD Display with key board and remote control including integrated 1 TB Hard disk for digitale storing of process sequences and detection of defect appearances for days (ring buffer...)



INFRARED SOLUTIONS

NETHERLANDS

POLAND

GERMANY

BELGIUM

CZECH REPUBLIC

LUXEMBURG

SLOVAKIA

AUSTRIA

SWITZERLAND

Application

Anwendungsbereich

Model

Modell



Building Investigation
Gebäudethermografie



Electrical Thermography
Elektrothermografie



Medical/Human Body Investigation
Medizintechnische Anwendungen



Predictive Maintenance
Vorbeugende Instandhaltung



Research & Development
Forschung & Entwicklung



Automation/Conditional Monitoring
Automation/Qualitätssicherung



Industrial Process Control
Industrielle Prozesskontrolle



Surveillance/Rescue Management
Fernbeobachtung/Sicherheitstechnik



Traffic Control
Verkehrsüberwachung



Furnace/Glass melting industry
Brennraum/Glasschmelze



Flame- and plastic measurement
Flamm- und Folienmessung



capable geeignet

well suitable gut geeignet

particularly suitable sehr gut geeignet